

Amendments to the Specification

Please replace the paragraphs at page 2, lines 10-22, with the following amended paragraphs:

Figure 1, generally at 100 shows a conventional passive matrix display. The conventional display in Figure 1 includes a front plate and a back plate. The front plate includes glass plate 108 with a polarizing filter 110 at its exterior surface. Color filters 112, 114, and 116, red, green, and blue, respectively, are disposed on interior surface of the glass plate. The color filters 112, 114, and 116 are disposed adjacent one another. The filters are covered by transparent plate 118. Spaced apart transparent electrode 120 of ITO are disposed on the plate. These electrodes precisely overlay the color filters. Interior to transparent electrodes 120 is liquid crystal alignment layer 122.

The back plate consists of glass plate 102 that has polarizing filter 104 disposed at its exterior surface. The interior surface of glass plate 102 has spaced apart transparent electrodes 106 made from ITO disposed there. These electrodes are disposed perpendicular to electrodes 120 of the front plate. ~~Interior of~~ Interior to transparent electrodes 106 is alignment layer 107.

The two alignment layers are spaced apart by a spacer 124. Liquid crystals 126 are disposed ~~on~~ in the spacer between the alignment layers.

Please replace the paragraph at page 5, line 23, through page 6, line2 with the following amended paragraph:

Stamp 306 having a patterned surface has a surface-modifying etch-resist forming species 308 disposed on it. Stamp 306 with the pattern of etch-resist is brought in contact with ITO 304 to microcontact print the pattern onto ITO 304. This transfers the pattern ~~into~~ onto the ITO to define the electrode lines for the back plate of the display. The ITO is etched which removes the ITO from the areas ~~above when etch-resist was~~ where etch-resist was not applied as shown at 310.

Please replace the paragraph at page 6, line 17 with the following amended paragraph:

The passive matrix display at 400 includes spacers ~~434~~ 440 to separate the front plate and back plate. The space between the plates contains liquid crystals ~~440~~ 434. Transparent ITO electrode lines 430 are aligned onto color filters 412, 414, and 416. Finally, the electrodes 406 and 430 are LC aligned. While ITO is the standard electrode material for displays, modest electrical conductivity is a significant limitation in passive matrix displays where signals must traverse the entire display through ITO address lines. To achieve grayscale in a liquid crystal display, a range of voltages may be applied to obtain intermediate states of liquid crystal switching or a pulse width modulation (“PWM”) approach may be employed to the same end. In either case, accurate grayscale in passive matrix displays is difficult due to the voltage drop and RC delays resulting from the resistance of ITO.

Please replace the paragraph at page 9, line 4 with the following amended paragraph:

Figure 6 generally at 600, shows a system for forming the self-alignment front plate according to the present invention. Feed reel 602 supplies flexible backing on to which is disposed the polarizing filter film 604. At the station including filter material dispense station 606, stamp/semi-cure drum 610, cure station 612, and inspection station ~~614~~ 613. The red filter is molded on the polarized film. The mold face of drum 610 is shown at Figure 8. After the red filter is applied to the polarizing film, the green filler is molded onto the polarizing film by filler material dispense station 614, stamp/semi-cure drum 620, and cure station 622 and inspection station 624. Similarly, the blue filter is formed by filter material dispense station 626, stamp/semi-cure drum 630, cure station 632, and inspection station 634. After leaving inspection station 634, the front plate structure is wound onto take-up reel 636.

Please replace the paragraph at page 9, line 19 with the following amended paragraph:

~~The material on reel 658 is disposed at reel 660.~~ The material on reel 660 is transported at 662 to drum 664. Drum 664 has etch-resist deposited on its circumference at reservoir 668. This etch resist is placed on the raised surface of the color filters but not

in the recessors between the filters. The etch resist coated structure is passed through etch ~~both~~ bath 672 then rinse 674. This will leave the ITO aligned with the color filters.

Please replace the paragraph at page 10, line 1 with the following amended paragraph:

Next, the circumference of roller 680 will receive etch-resist from reservoir 682. The circumference is patterned for placing alignment ridges in the ITO by microcontact printing a pattern of fine lines of, for example, a self-assembled monolayer. Once this is done the web is passed through etch solution 686 and rinse 688 and inspect at inspection station 692. ~~After,~~ After this is ~~completed~~ completed, front plate is wound into take-up reel 694.

Please replace the paragraph at page 10, line 6 with the following amended paragraph:

Referring to Figure 7, generally at 700, the process for forming the back plate will be ~~described. Process for fabrication of the back plate/film of the invention. First, indium tin oxide is~~ described. The process for fabrication of the back plate/film of the present invention begins with the indium tin oxide being deposited onto one side of polarizing filter film. To pattern the electrode lines into the indium tine oxide, the web is passed into contact with a drum on which an elastomeric stamp has been affixed. The stamp has raised features in the pattern desired for the electrode lines. The stamp is inked with an agent that will form an etch block on the ITO, for example, an agent that will form a self-assembled monolayer, and transfers the agent to the ITO surface according to the pattern of the stamp. An etch and rinse are performed and the web inspected by in-line metrology. A liquid crystal alignment layer is patterned on the ITO electrode lines as described in Figure 8.

Please replace the paragraph at page 10, line 18 with the following amended paragraph:

The polarizing film with ITO disposed on it is disposed at reel 720. Next, etch-resist is patterned ~~on to~~ onto the ITO. This is done by passing the web in contact with

drum 724 on which an elastomeric stamp has been affixed. The stamp has raised features in the pattern desired for the electrode lines. The stamp is coated with etch-resist that will form an etch block on the ITO, for example an agent that will form a self-assembled monolayer, and transfers the agent to the ITO surface according to the pattern of the stamp. The coated ITO is then sent through etch ~~both~~ bath 730 and rinse 734. This results in the formation of the electrode lines. The web is inspected ~~by~~ at inspection station 736.

Please replace the paragraph at page 11, line 3 with the following amended paragraph:

At drum 738, a liquid crystal (LC) alignment layer is patterned ~~of~~ on the ITO electrodes. This is done by coating the patterned drum 738 and ~~importing~~ imparting it to the ITO. The drum is coated with etch-resist from reservoir 740. The web is passed through etch ~~both~~ bath 744, then rinse 748. Following this, it is inspected at inspection station 750.